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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,938	01/18/2002	Gareth Williams	H8610/259296	7839

23370 7590 05/23/2005

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EXAMINER

PRYOR, ALTON NATHANIEL

ART UNIT PAPER NUMBER

1616

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/856,938

Applicant(s)

WILLIAMS ET AL.

Examiner

Alton N. Pryor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1,2,4,5 and 9-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,2,4,5 and 9-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/18/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,2,4,5,9-15 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the invention comprising bethoxazin as the oxathiazine; Bardap 26 as the ammonium compound; and cyproconazole, tebuconazole, propiconazole as the triazole compounds, does not reasonably provide enablement for all other combinations of oxathiazines, quaternary ammonium compounds plus triazole compounds. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Because the functional groups on the core structures (oxathiazine, triazole, and quaternary ammonium) in the invention are many and have different sizes, polarity and electronegativity, the activity of structures would be questionable. The predictability in this art is high since a small change in a functional feature could result in a drastic change in activity and such a change can also result in an opposite effect or activity. To one of ordinary skill in the art, it would be a big job to determine the effect of all of the claimed compositions. Because of this large burden (determination of which compositions would render synergistic results), Examiner would like to point out that Applicant would be entitled to a subgenus of what is being claimed. Examiner stresses that the compositions created should

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comprise a group of related compounds in terms of size, polarity and electronegativity for each component (oxathiazine, triazole, and quaternary ammonium) of the composition:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,4,5,9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al (US 5777110; 7/7/98) and Rustenburg et al (US 6423732; 7/23/02). Davis teaches a method of protecting wood against wood destroying materials (fungi) comprising applying to the wood a composition comprising 3-benzo[b]thien-2-yl)-5,6-oxathiazine 4-oxide plus additional actives. See abstract, column 3 line 41, column 8 Example 9. The additional actives include Cyproconazole, which is a fungicide known to function as a wood preservative. See column 5 lines 54-60. Davis does not teach the instant composition / method comprising a quaternary ammonium compound. However, Rustenburg teaches a method of protecting wood destroying fungi such as Ascomycetes and Deuteromycetes comprising applying to the wood a composition comprising Cyproconazole plus dimethyldidecylammonium chloride (quaternary ammonium salt). See abstract, column 1 line 38 – column 2 line 21, column 3 lines 5-25. It would have been obvious to one having ordinary skill in the art to combine the prior art inventions to arrive at a single method of protecting wood against wood

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destroying fungi comprising 3-benzo[b]thien-2-yl)-5,6-oxathiazine 4-oxide plus Cyproconazole plus dimethyldidecylammonium chloride. One would have been motivated to do this in order to enhance the effectiveness of the method of protecting wood against wood destroying fungi. With respect to the instant ratio of ingredients, one having ordinary skill in the art would have been expected to determine the optimum ratio range of each ingredient for the invention. One would have been motivated to do this in order to make an invention that would have been most effective in providing wood protection against fungi.

### ***Telephonic Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

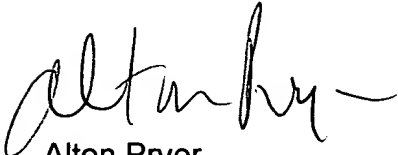
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on 571-272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Alton Pryor', with a long horizontal flourish extending to the right.

Alton Pryor  
Primary Examiner  
AU 1616